



# UNITED STATES PATENT AND TRADEMARK OFFICE

*cen*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,518	07/08/2003	Kiminori Tamai	240077US0DIV	7631
22850	7590	12/13/2007		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER MAZUMDAR, SONYA	
			ART UNIT 1791	PAPER NUMBER
			NOTIFICATION DATE 12/13/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/614,518	<b>Applicant(s)</b> TAMAI ET AL.	
	<b>Examiner</b> Sonya Mazumdar	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-12, 14-21 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-12, 14-21 and 23-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/859,386.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed September 25, 2007 have been fully considered, but they are not persuasive.

Oka et al. (US 5,976,297) specifically teach compressing a functional coating dispersion (2, 4) prior to transferring to a substrate (3) from a release film, by press-bonding the coating dispersion to the substrate (column 10, lines 58-64; Figures 5a-5d). Bilhorn (US 4,197,635) is used to teach compressing a functional coating layer at a certain temperature, which in this example is room temperature. As can be seen in Figure 2, both surfaces of a functional layer (28) is compressed, one surface having a grid (32) attached thereon, by nip rollers (36, 38) to form a unitary continuous film (column 4, lines 20-21).

As mentioned below, "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established." *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977) (see MPEP § 2112.01).

Because the functional film taught by Oka et al. in view of Bilhorn is substantially identical to the functional film taught by the applicant, it is concluded that both functional films will display substantially identical properties. Furthermore, Applicant argues properties, such as the desired packing densities of the particles in the functional

film, but the properties are not specifically claimed and are also dependent on the conditions where the functional film is formed.

Therefore the rejections of claims 9, 11, 12, 14-18, 20, 21,23, 24, and 25 are maintained.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 9 through 12, 14 through 18 through 21, 23, 24, and 25 are rejected under 35 U.S.C. 103(a) as unpatentable over Oka et al. (US 5,976,297) in view of Bilhorn (US 4,197,635).

With respect to claims 9 through 12, 14, 15, 16, 18 through 21, 23, and 24, Oka et al. teach forming an antireflection film, where a functional coating dispersion (2), comprising a solution of particles such as zinc oxide ( $\text{ZnO}_2$ ) without resin, is applied to a release film (1), applying an adhesive or uncured resin layer (4) over the coating (abstract; column 2, lines 4-7; column 12, lines 7-8 and lines 24-25; column 53, lines 31-50). The coated release film is then press-bonded and transferred onto a substrate (3) after the release film is removed thereafter (column 10, lines 49 - 65; column 55, lines 19-22; Figure 5).

However, Oka et al. fail to teach compressing a functional coating dispersion at a specific temperature. Bilhorn teach applying a conductive coating (28), such as zinc oxide in a binder without resin, to a support (22), drying the coating, and then compressing the coating through a pressure nip (35) at ambient temperature, i.e. room temperature ( $\sim 25^\circ\text{C}$ ) (column 3, lines 8-31; column 10, lines 12-19; Figure 2).

It would have been obvious to compress the coating on a support within a certain temperature, and one would have been motivated to do so since the pressure exerted at a nip between two rollers together with the adhesive properties of a bonding agent is

sufficient to compress the coating onto a support, without the necessity of elevating the temperature (column 4, lines 14-20).

Furthermore, by applying a solution of particles with an average particle diameter of no more than 200 nm and press-bonding, it is obvious that a compressed microparticulate coating is formed, as taught by Oka et al. in view of Bilhorn, which does not have cracks and is especially capable of being drawn 10% without forming cracks, exhibiting a surface resistivity at most 10 times greater than the surface resistivity prior to drawing. With respect to claims 10 and 19, it is also obvious that the compressed coating has a film strength of at least 6 N/12 mm before transferring onto another support.

“Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established.” *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977) (see MPEP § 2112.01)

With respect to claims 17 and 25, Oka et al. teach providing functional particles in the coating with an average particle diameter of no more than 200 nm (column 12, lines 26–32).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonya Mazumdar whose telephone number is (571) 272-6019. The examiner can normally be reached on 8:00 AM - 4:30 PM.


Application/Control Number:  
10/614,518  
Art Unit: 1791

Page 6

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
SM

  
PHILIP C. TUCKER, PH.D.  
SUPERVISORY PATENT EXAMINER  
ART UNIT 1791